

REMARKS

The Official Action mailed March 31, 2003, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on January 12, 2000, March 31, 2000, June 28, 2001, October 31, 2001, July 1, 2002, and December 26, 2002.

Claims 1-37 are pending in the present application. Claims 3, 6, 13 and 14 have been amended to better recite the features of the present invention. It is not believed that these amendments raise any new issues that would require further consideration or search and thus are believed to be appropriate for entry after final. Claims 1-3, 7, 10 and 13 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. The Applicant notes with appreciation the allowance of claims 1, 4, 10-12, 17-20 and 31-34.

Claims 7-9 and 27-30 are objected to under 37 CFR § 1.75 as being a substantial duplicate of claims 1, 4 and 17-20. The Applicant respectfully disagrees. The Official Action alleges that when two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. However, independent claims 1 and 7 are not duplicates or even substantial duplicates. The terms "first direction" and "second direction" in claim 1 are broader than, and therefore different from, the terms "width direction" and "longitudinal direction" in claim 7. Also, as stated in MPEP § 706.03(k), "court decisions have confirmed applicant's right to restate (i.e., by plural claiming) the invention in a reasonable number of ways. Indeed, a mere difference in scope between claims has been held to be enough." Given the clear difference in scope between independent claims 1 and 7, the Applicant respectfully submits that the claims are not substantial duplicates. Reconsideration and withdrawal of the objection are requested.

Claims 3, 6, 13-16, 24-26 and 35-37 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Also, the drawings are objected to under 37 CFR § 1.83(a). The Official Action asserts that amended independent claims 3 and 13 "have

established an unclear and confusing structural arrangement by reciting the limitation of 'top and bottom cylindrical lenses', it is not clear as to the structural arrangement of these lenses" (page 3, Paper No. 32). The Official Action also objects to the drawings for not showing this feature (p. 2, *Id.*). In response, the Applicant has amended claims 3, 6, 13 and 14 to recite "cylindrical lenses located at outer sides of the cylindrical lens group." The amendment is merely clarifying in nature, and should not in any way affect the scope of protection afforded the claims for infringement purposes, particularly under the Doctrine of Equivalents. The Applicants respectfully submit that independent claims 3 and 13 are definite as amended, and that the objection is moot in light of the amendment. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 112 and the objection under § 1.83(a) are in order and respectfully requested.

The Official Action rejects claims 2, 5, 21 and 22 as obvious based on the combination of U.S. Patent No. 5,059,013 to Jain, U.S. Patent No. 6,353,218 to Yamazaki et al. and U.S. Patent No. 6,100,961 to Shiraishi et al. It further appears that the Official Action rejects claim 23 based on the same prior art. The Applicants respectfully traverse the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2143-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Fine*, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Jain, Yamazaki and Shiraishi do not teach or suggest a cylindrical lens group for dividing an emitted laser beam in a width direction, the cylindrical lens group comprising a plurality of cylindrical lenses queuing in the width direction, each of the cylindrical lenses extending in a longitudinal direction which is vertical to the width direction, where a width of the cylindrical lens group is narrower than a width of the emitted laser beam.

The Official Action states that Jain teaches an illumination system in Figure 1A, which produces a laser beam having uniform intensity and a selected cross-section shape. The shape of the beam is obtained by placing a slit 14 between the excimer laser 10 and the cylindrical lens 20 and placing a slit 26 after cylindrical lens 22, where slit 14 illustrates a width narrower than the maximum width of the beam. The Official Action concedes that Jain does not disclose having an optical system for dividing and combining the laser beam. The Official Action relies on Yamazaki to teach a beam shaping optical system of an illumination system including a group of convex lenses and a slit to obtain a rectangular shape beam as shown in Figure 9 of Yamazaki. The Official Action asserts that it would have been obvious to "place the slit of Jain between the excimer laser and the lens of Yamazaki et al because it would provide a beam to cylindrical lens group having a narrower width than the maximum width of the beam before being incident on the cylindrical lenses thereby obtaining a rectangular shaped beam for irradiating a large area of a substrate with a uniform beam intensity" (p. 4, Paper No. 32). The Applicants traverse the rejection because, even assuming the cited motivation to combine Jain and Yamazaki is proper, the combination of Jain and Yamazaki does not render obvious the features of independent claim 2 of the present invention.

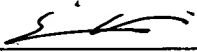
Independent claim 2 of the present invention does not recite a slit. Rather, claim 2 recites that a width of a cylindrical lens group is narrower than a width of an emitted laser beam. This feature of the present invention condenses light and improves the shape of the beam as compared to the slit of Jain and Yamazaki. Furthermore, even if

motivation were found to place the slit of Jain between the excimer laser and the lens of Yamazaki, the combination would not teach or suggest a cylindrical lens group for dividing an emitted laser beam in a width direction, the cylindrical lens group comprising a plurality of cylindrical lenses queuing in the width direction, each of the cylindrical lenses extending in a longitudinal direction which is vertical to the width direction, where a width of the cylindrical lens group is narrower than a width of the emitted laser beam.

Since Jain, Yamazaki and Shiraishi do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



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